

# Exelon Utilities – ACE, BGE, ComEd, DPL, PECO, Pepco



19,700  
Employees

\$31.7B  
2016 Rate Base

\$15.1B  
In Revenue

24.9  
Thousand mi<sup>2</sup>  
Combined  
Service Territory



10 M  
Customers

8.5 M  
Smart Meters  
Installed



11,430  
Transmission line  
miles (circuit)

Note: Rate base number is Exelon and PHI combined and denotes year-end; revenue number accounts for PHI revenue as of March 24, 2016 merger date.

# Clean Generation and Innovative Customer Services

EXELON SERVICE AREA AND GENERATION ASSETS AS OF DECEMBER 31, 2017

Provide electricity and/or natural gas through ACE, BGE, ComEd, DPL, PECO, Pepco and Constellation.

Lowest owned generation fleet CO<sub>2</sub> emission rate out of top 20 investor-owned companies, with more than 35,000 MW of capacity.

**532 MW**

SOLAR GENERATION CAPACITY IN 12 STATES AND THE DISTRICT OF COLUMBIA AT 447 LOCATIONS

**961 MW**

WIND GENERATION CAPACITY IN 11 STATES. 832 WIND TURBINES. AT 42 WIND FARMS

**8.9**

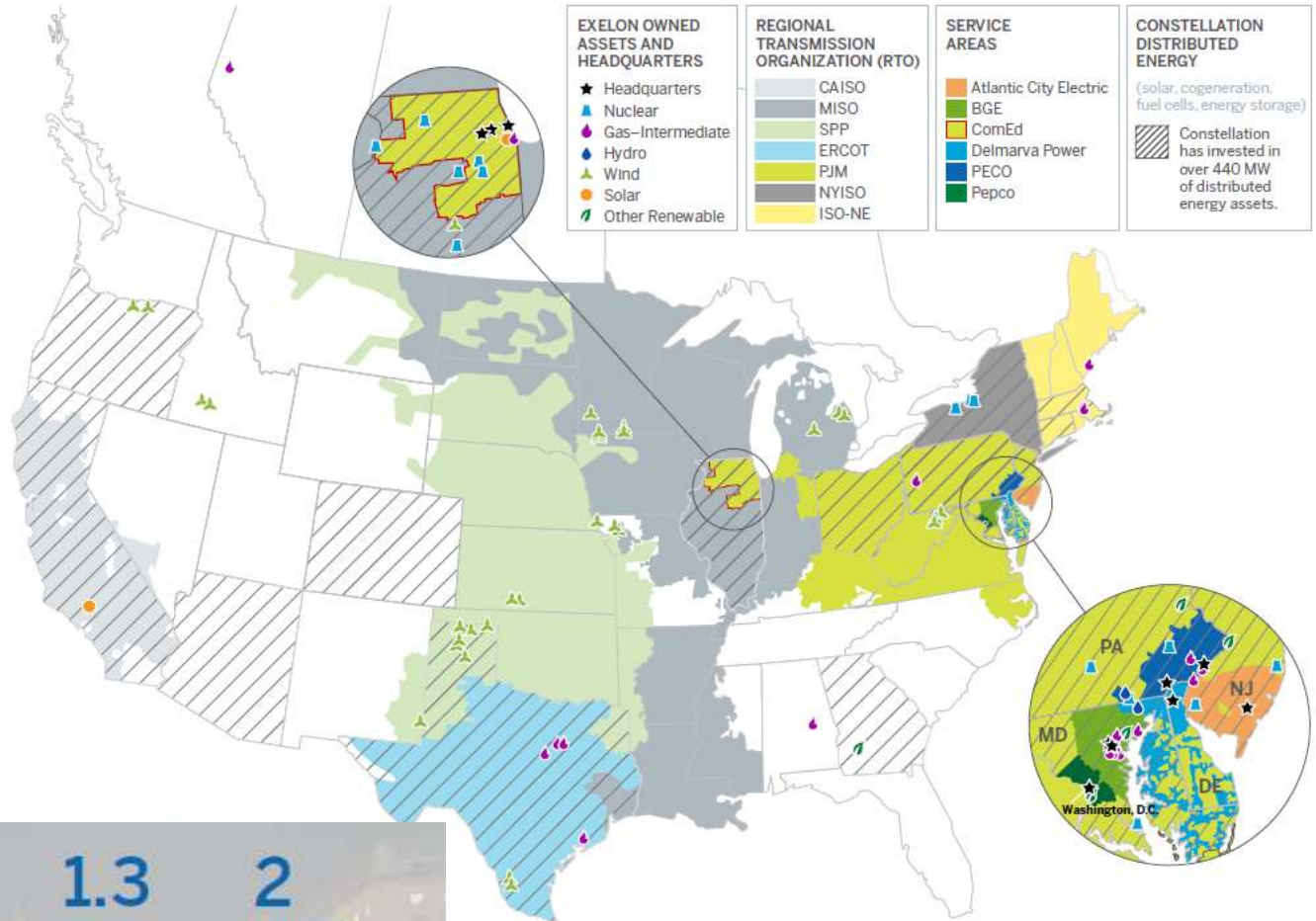
MILLION  
ELECTRIC  
UTILITY  
CUSTOMERS

**1.3**

MILLION  
NATURAL GAS  
UTILITY  
CUSTOMERS

**2**

MILLION  
COMPETITIVE  
RETAIL  
CUSTOMERS



# The Evolving Utility

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## YESTERDAY

- **SAFE**
- **RELIABLE**
- **AFFORDABLE**

## TODAY

- **SAFE & SECURE**
- **RELIABLE & RESILIENT**
- **AFFORDABLE**
- **CUSTOMER-FOCUSED**
- **INCREASINGLY CLEAN**

## TOMORROW

- **SAFE & SECURE**
- **RELIABLE & RESILIENT**
- **AFFORDABLE & EQUITABLE**
- **CUSTOMER-FOCUSED & INTERACTIVE**
- **CARBON FREE**
- **SERVICE PLATFORM**
- **PLATFORM FOR OTHER INFRASTRUCTURE**

# Utility Evolution Impacts Every Aspect of Utility

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- Load forecasting
  - System need identification
  - System investment
  - Revenue and regulatory models
  - Readiness and response planning
  - Customer communications, education, and offerings
  - Customer segmentation
  - Interactions with 3<sup>rd</sup> parties– energy supply, customer services
  - Rate designs
  - Workforce
- ➡ DSP
- ➡ NWA

# Distribution System Planning – Key Considerations

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**Customer-focused** means that priorities need to be:

First – Reliability

Second – Affordability

Third – Delivering on policy goals

**Stakeholder-informed** means:

Information flow has to be bi-directional

Utility has to be open to both big ideas and specific solutions

**Utility-driven** means utility is accountable for the system and must:

Identify the problem to be solved

Consider concepts put forward by internal and external experts

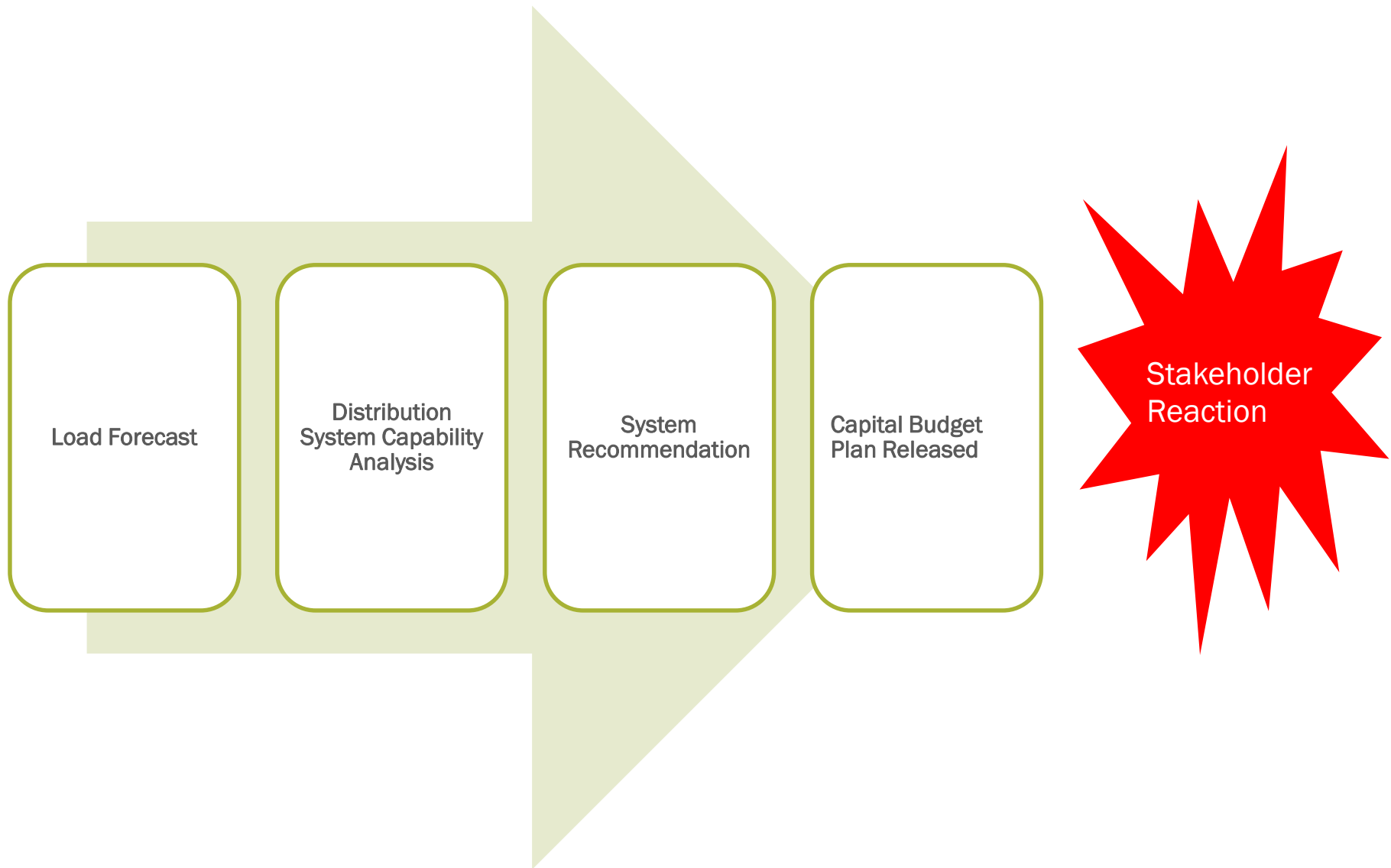
Define the specific solution best suited to the specific need and  
the whole system

Manage the risk

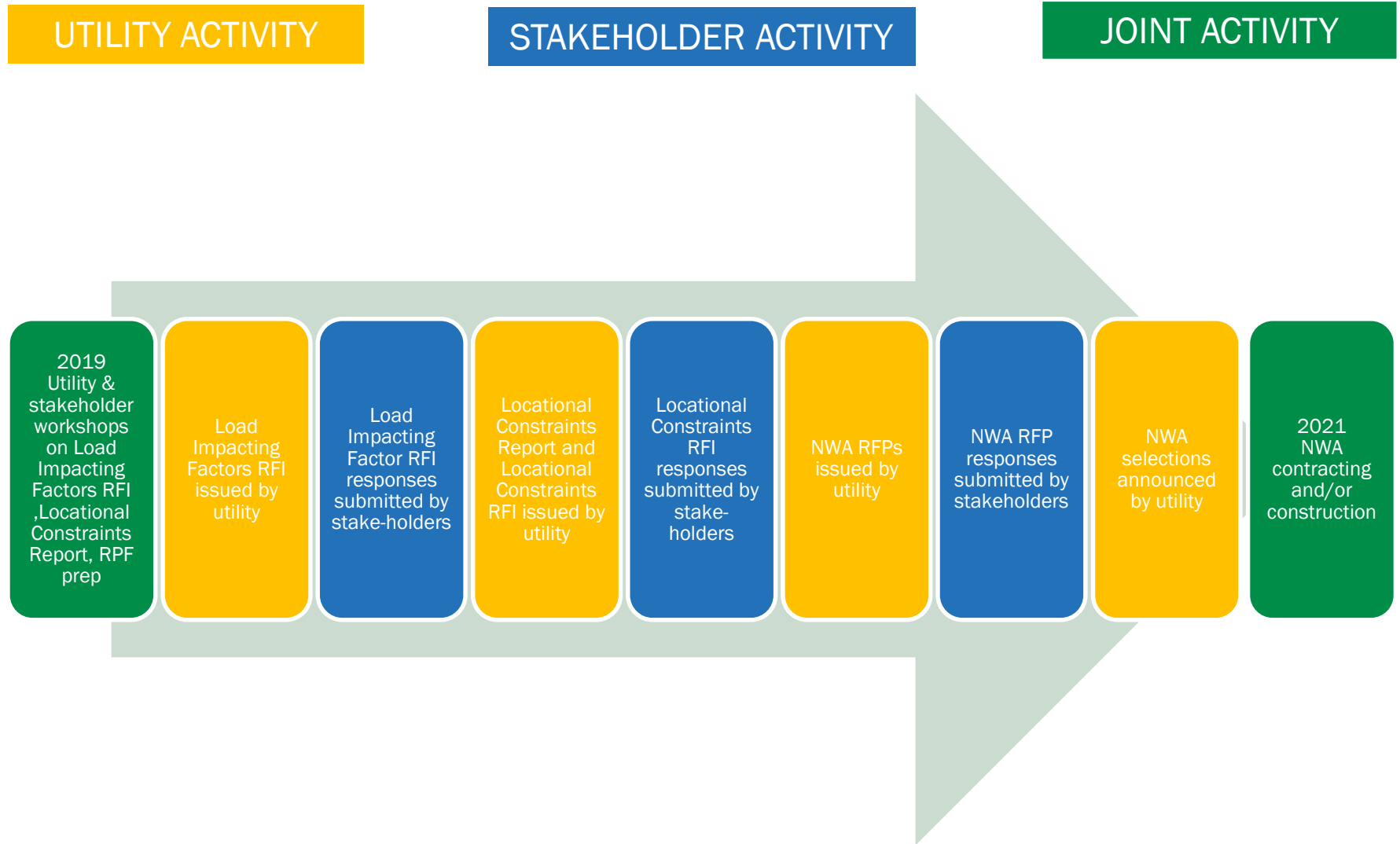
Control the asset

# Current Distribution System Planning Process

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# Proposed Distribution System Planning Process





# NWA Business and Regulatory Models

Based on MD PC44 proposed storage pilot proposal but can be extrapolated to other NWA strategies.

- Allows access to multiple value streams to allow more NWAs to pencil
- Requires consideration of utility ownership of non-traditional assets for grid needs (vs retail sales)
- Variety of ownership models available if utility assured of asset control and means for recovery
- Recovery models must include return on contracts, return on savings

Pilot Title	Storage Ownership	Storage Control for Grid Reliability	Storage Operation in Wholesale Markets	Application to Rate Base
<b>1. Utility Centric</b>	Utility	Utility	Utility	Storage investment less revenues from wholesale transactions
<b>2. Multi-Use</b>	Utility	Utility	3 <sup>rd</sup> party	Storage investment less revenues from 3 <sup>rd</sup> party lease for wholesale transactions
<b>3. 3<sup>rd</sup> party Ownership</b>	3 <sup>rd</sup> party	Utility	3 <sup>rd</sup> party	Utility payment to 3 <sup>rd</sup> party for priority access to storage for grid reliability
<b>4. Virtual Powerplant</b>	Customer, utility or 3 <sup>rd</sup> party	Utility via aggregator	3 <sup>rd</sup> party or DSO/utility (if at all)	Utility payment to aggregator for priority access to storage for grid reliability Storage investment or customer rebate if utility owns or helps finance storage units